CLAIMS

1. A method for oxidation of an aromatic compound having an alkyl substituent, comprising reacting the aromatic compound having an alkyl substituent with an oxygen molecule to oxidize the alkyl substituent into an aldehyde group in a presence of a catalyst containing Aq and/or Au supported on a carrier.

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- The method for oxidation according to claim
  1, wherein any one or more kinds of group VIII elements
  are further supported on the catalyst.
  - 3. A method for producing an aromatic aldehyde compound, comprising reacting an aromatic compound having an alkyl substituent with an oxygen molecule to produce the aromatic aldehyde compound by the method for oxidation according to claim 1 or 2.
  - 4. A method for producing an aromatic carboxylic ester, comprising reacting an aromatic compound having an alkyl substituent with an oxygen molecule to produce an aromatic aldehyde compound by the method for oxidation according to claim 1 or 2, and then reacting the aromatic aldehyde compound with a primary alcohol to produce the aromatic carboxylic acid ester.